

REMARKS

Claims 1-17, 35, 38, 46 and 49-58 are pending and under examination. Claims 1 and 2 have been cancelled herein without prejudice.

Regarding Sequence Compliance

Applicants submit herewith a new sequence listing (paper & CRF) that includes the amino acid sequence appearing at page 54, which has been assigned SEQ ID NO: 5. The specification has been amended to recite the newly added sequence identifier. Figure 12 has been amended to add sequence identifiers 1-4 next to the corresponding sequences as shown in the attached replacement drawing.

Regarding 35 U.S.C. § 112, First Paragraph (Written Description)

Applicants respectfully traverse the rejection of claims 3-17, 34-35, 38, 46 and 49-58 under 35 U.S.C. § 112, first paragraph, for allegedly containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, had possession of the claimed invention at the time the application was filed.

The Examiner's reliance on *Eli Lilly* is misplaced. In *Eli Lilly*, the patent specification did not identify the sequence (structure) of any embodiment of DNA claimed therein. *See Eli Lilly*, 119 F.3d at 1567-68 (affirming a judgment that the claim requiring cDNA encoding human insulin was invalid for failing to provide an adequate written description where the specification described the human insulin A and B chain amino acid sequences encoded by the cDNA, but did not provide the nucleotide sequence for the cDNA itself).

In *Ex parte Bornscheuer et al.*, the Board reversed a written description rejection of a claim directed to a method for altering the function of a protein by random mutation of the gene encoding the protein and selecting for a mutation that results in a desirable alteration in the protein's function. Appeal No. 2005-1745, Application No. 09/161,680. The claim at issue was not limited to a particular protein, but encompassed any protein falling within the scope of "lipases, amidases, nitrilases, ether hydrolases, peroxidases, glycosidases and phytases."

In *Ex parte Anderson et al.*, the Board of Patent Appeals and Interferences reversed a written rejection of a claim directed to any mutant of a specified cellulase protein having “endoglucanase activity.” Appeal No. 2005-0908, Application No. 09/261,329. Naturally occurring cellulases, including the specified cellulase, do not normally have endoglucanase activity, and the invention was the successful creation of a single cellulose mutant having the desired activity. However, based on the limited disclosure of a single mutant the inventor claimed any mutant having this desired function, with the only structural limitation being that the mutant must have a histidine at a specified position in the amino acid sequence.²³¹ In overturning the Examiner’s rejection for lack of written description, the Board explicitly interpreted the claim as encompassing any modifications of the cellulase, “wherein the modifications may be substitutions, insertions or deletions, with the proviso that the resulting cellulose [sic] have endoglucanase activity.”

Applicants respectfully request withdrawal of the rejection of claims 3-17, 34-35, 38, 46 and 49-58 under 35 U.S.C. §112, first paragraph, for allegedly containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, had possession of the claimed invention at the time the application was filed.

Regarding Statutory Double Patenting

The statutory double-patenting rejection of claim 1 under 35 U.S.C. §101 as claiming the same invention as claim 1 of U.S. Patent No. 7,067,621, has been rendered moot by the cancellation herein of claim 1.

Regarding Obviousness Type Non Statutory Double Patenting

The rejection of claims 1-17, 34-35, 38, 46 and 49-58 on the ground of non-statutory double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 7,067,621 is respectfully traversed. Applicants respectfully request that this rejection be held in abeyance until there is an indication of allowable subject matter at which time Applicants will file a Terminal Disclaimer, if appropriate.

CONCLUSION

In light of the amendments and remarks herein, Applicants submit that the claims are now in condition for allowance and respectfully request a notice to this effect. The Examiner is invited to call the undersigned attorney if there are any questions.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

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